



July 31, 2020

US EPA Region 9  
ATTN: Air Section, ENF-2-1  
75 Hawthorne Street  
San Francisco, CA 94105

**Subject: Desert View Power Permit #CB-OP 99-01 Annual Boiler MACT Compliance Test, Excess HCl Emissions**

Dear Sir/Madam,

This letter serves as the required follow up to the 48 hr. notification, that was sent via email, to [AEO\\_R9@epa.gov](mailto:AEO_R9@epa.gov) on July 24, 2020. The email was a notice of an exceedance of HCl that occurred during the annual Boiler MACT compliance test for Desert View Power (DVP). Per PSD permit SE 87-01 Condition III.C.2.b, below is a description of events, and the probable cause of failure.

On June 3, 2020, Desert View Power completed the annual boiler MACT compliance testing. The results of the HCl testing are obtained by using the wet chemistry Method 26a (40 CFR Part 63 Subpart DDDDD, Table 5). The results of this test are not instantaneous and requires samples to be sent to a lab for analysis.

On June 19, 2020, Montrose Air informed DVP that based on estimated heat input values taken from prior testing, Unit 1 and Unit 2 may have potentially exceeded the 0.022 lb/MMBtu limit for HCl.

DVP began a review of potential sources that could cause excess HCl emissions. DVP reviewed its CEMS data for SO<sub>2</sub> (operating parameter used for continuous compliance demonstration for HCl), and the values were well below the established operating limit. The monthly average emission reports (May 2019-June 2020) indicated the highest 30-day rolling average for Unit 1 was 14.43 ppm @ 3% O<sub>2</sub> and for Unit 2 was 14.5 ppm @ 3% O<sub>2</sub> compared to an operating limit of 27 ppm@ 3% O<sub>2</sub>.

Subsequently, an outage was scheduled on June 26-June 27, 2020 to inspect the hydrated lime injection system, which is used to reduce HCl emissions. The hydrated lime injection system consists of a storage tank, blowers to convey the hydrated lime to the injection location, and 4 injection nozzles per boiler. During the inspection, the maintenance department found that one injection nozzle on Unit 1 was 90% plugged. The other 3 nozzles had some light blockage, but typical for this type of system. Unit 2's nozzles had typical light blockage, but the injection line pressure was still elevated, indicating possible plugging elsewhere in the line. The system was once again isolated, and maintenance

discovered that the conveying line and sweeping elbow were about 60% plugged. This was an abnormal condition and has not occurred in the past.

During DVP's previous scheduled maintenance outage (April 27-May 14, 2020), DVP inspected all injection nozzles and performed a routine cleaning. This occurred prior to the stack test. At that time, line pressures appeared to be normal.

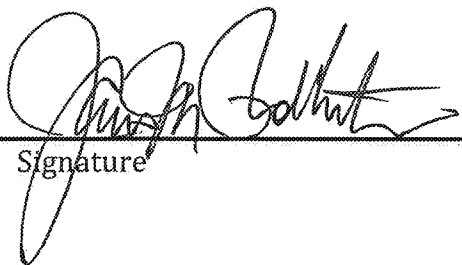
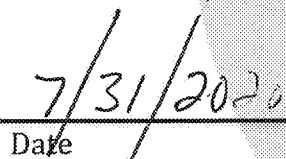
On July 23, 2020, Montrose Air issued our final MACT test report. The HCl emission result for Unit 1 was 0.0248 lb/MMBtu, and 0.0481 lb/MMBtu for Unit 2, both above the 0.022lb/MMBtu emissions limit. Note that since 2016, DVP has not failed a compliance test for HCl emissions. DVP believes that the blocked sweeping elbow in the hydrated lime line on Unit 2 and the plugged lance on Unit 1 were directly related to the exceedance of HCl. As a result of this discovery, DVP will add inspection of the sweeping elbow portion of the line to its hydrated lime injection maintenance activities and monitor injection lances closely. DVP will also schedule a re-test using the Method 26a to demonstrate compliance as soon as a contractor is available for testing.

Desert View Power is requesting that the USEPA waive the requirement for a 60-day test notification in Boiler MACT. We will notify the USEPA and SCAQMD of the test date as soon as it is known but anticipate the third week of August.

If you have any questions or require any other information, please do not hesitate to contact me.

#### **CERTIFICATION**

I certify, under penalty of law, that this document and all attachments was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquire of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware of significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

  
Signature  
Date

Jim Robertson  
Plant Manager  
Desert View Power  
62-300 Gene Welmas Drive  
Mecca, CA 92554  
(760) 262-1653  
jrobertson@greenleaf-power.com

Enclosure: Annual Boiler MACT HCl Test Results

cc: Mr. Andrew Chew  
U.S. EPA, Region 9

Mr. Scott Connelly  
U.S. EPA, Region 9,

Mr. Kenneth Dudash  
SCAQMD

Mr. Thomas Liebel  
SCAQMD

## 4.0 TEST RESULTS

This section presents the results of the performance tests conducted at Desert View Power, during June of 2020. Test results are presented in the following sections:

- 4.1 Unit 1 Performance Test Results
- 4.2 Unit 2 Performance Test Results
- 4.3 Fuel Analysis Results

All supporting data sheets, CEM data, instrument strip charts, laboratory data, chain of custody records, and quality assurance data are included in Appendix A. Plant data are contained in Appendix B. Emissions and Load calculations are presented in Appendix C. Quality assurance information is contained in Appendix D. The test plan that was submitted and is contained in Appendix E.

### 4.1 UNIT 1 PERFORMANCE TEST RESULTS

The results of the HCL testing are presented in Table 4-1. HCL emissions for Unit 1 were 0.0248 lb/MMBtu. This is above the permit limit of 0.022 lb/MMBtu. The results of the total solid particulate testing are presented in Table 4-2. Total solid particulate emissions for Unit 1 were 0.07 lb/hr. This is below the permit limit of 3.9 lb/hr. Gaseous emissions results are presented in Tables 4-3, and 4-4. NO<sub>x</sub>, CO, SO<sub>2</sub> and hydrocarbon emissions results were below established permit limits. Results from the hydrocarbon tests can be found in Appendix C.1.5.1 and C.1.5.2.

**TABLE 4-1  
HYDROCHLORIC ACID TEST RESULTS UNIT 1  
DESERT VIEW POWER  
JUNE 2, 2020**

Test Number	1-HCL-U1	2-HCL-U1	3-HCL-U1	Average	Limit
<b>Date</b>	06/02/20	06/02/20	06/02/20		
<b>Start/Stop Time</b>	620/839	910/1132	1204/1426		
<b>Stack Flow Rate</b> , dscfm	89,373	89,807	89,840	89,673	
<b>Sample Volume</b> , dscf	92.006	92.865	92.747	92.539	
<b>O<sub>2</sub></b> , %	8.23	8.13	8.08	8.15	
<b>CO<sub>2</sub></b> , %	12.31	12.33	12.20	12.28	
<b>HCl</b>					
mg/sample	62.4	78.2	81.2	73.9	
mg/dscm	23.95	29.73	30.91	28.20	
ppm (as HCl)	15.79	19.60	20.38	18.59	
lb/hr (as HCl)	8.01	9.99	10.39	9.47	
MMBtu/Hr	381	381	381	381	
lb/MMBtu	0.021	0.026	0.027	0.0248	0.022

## 4.2 UNIT 2 PERFORMANCE TEST RESULTS

The results of the HCL testing are presented in Table 4-5. HCL emissions for Unit 2 were 0.0481 lb/MMBtu. This is above the permit limit of 0.022 lb/MMBtu. The results of the total solid particulate testing are presented in Table 4-6. Total solid particulate emissions for Unit 2 were 0.05 lb/hr. This is below the permit limit of 3.9 lb/hr. Gaseous emissions results are presented in Tables 4-7, and 4-8. NO<sub>x</sub>, CO, SO<sub>2</sub> and hydrocarbon emissions results were also below established permit limits.

**TABLE 4-5  
HYDROCHLORIC ACID TEST RESULTS UNIT 2  
DESERT VIEW POWER  
JUNE 3, 2020**

Parameter/Units	1-HCL-U2	2-HCL-U2	3-HCL-U2	Average	Limit
<b>Date</b>	6/3/2020	6/3/2020	6/3/2020		
<b>Start/Stop Time</b>	617/837	910/1140	1211/1428		
<b>Stack Flow Rate, dscfm</b>	90,944	89,825	91,133	90,634	
<b>Sample Volume, dscf</b>	95.049	93.178	94.765	94.330	
<b>O<sub>2</sub>, %</b>	7.87	7.87	7.70	7.81	
<b>CO<sub>2</sub>, %</b>	12.61	12.61	12.69	12.64	
<b>HCl</b>					
mg/sample	130.0	146.0	160.0	145.3	
mg/dscm	48.29	55.33	59.62	54.41	
ppm (as HCl)	31.84	36.47	39.30	35.87	
lb/hr (as HCl)	16.44	18.60	20.34	18.46	
MMBtu/Hr	384	384	384	384	
lb/MMBtu	0.043	0.048	0.053	0.0481	0.022